

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT
"REVISED"

PERMITTEE

International Paper Foodservice Business
Attn: Chad Boike
500 Dacey Drive
Shelbyville, Illinois 62563

Application No.: 75120052

I.D. No.: 173030AAP

Applicant's Designation:

Date Received: October 21, 2002

Subject: Paperware Manufacturing Plant

Date Issued: November 12, 2002

Expiration Date: May 5, 2003

Location: 500 Dacey Drive, Shelbyville

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of seven flexographic printing presses, one plate maker processor (active and inactive modes), one plate maker dryer, nine tub gluing lines, one laminator, resin pellet unloading system controlled with filters, 20 plastic lid and cup extruders, natural gas fired boiler and space heaters, corona arc treatment and ozone decomposition unit, miscellaneous clean-up operations, two resin storage tanks controlled by filters, and three UV offset printing presses pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for volatile organic material (VOM), 10 tons/year for a single hazardous air pollutant (HAP) and 25 tons/year for totaled HAP). As a result, the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits for this location.
2. Operations and VOM emissions of the source shall not exceed the following limits:
 - a. VOM emissions from the flexographic printing presses:

3.1 tons/month, 30.7 tons/year

VOM emissions shall be calculated using the following equation:

$$E = \sum I \times V_i + \sum E \times V_e$$

Where:

E - VOM emissions (tons)

I - Ink usage (tons)

V_i - VOM content of inks (fraction)

E - Extender usage (tons)

V_e - VOM content of extender (fraction)

- b. VOM emissions from the printing presses cleanup operations:

0.45 tons/month, 4.0 tons/year

VOM emissions shall be calculated using the following equation:

$$E = \sum C \times V_c$$

Where:

E - VOM emissions (tons)

C - Cleaner usage (tons)

V_c - VOM content of cleaner (fraction)

- c. Operations and VOM emissions of the laminator and tub gluing lines:

<u>Adhesive Usage</u> <u>(Ton/Mo) (Ton/Yr)</u>		<u>VOM Content</u> <u>(Wt.%)</u>	<u>VOM Emissions</u> <u>(Ton/Mo) (Ton/Yr)</u>	
70	700	1.0	0.70	7.0

- d. VOM emissions from the miscellaneous cleanup operations:

1.5 tons/month, 15 tons/year

VOM emissions shall be calculated using the following equation:

$$E = \sum S \times V_s - \sum W \times V_w$$

Where:

E - VOM emissions (tons)

S - Cleanup solvent usage (tons)

V_s - VOM content of cleanup solvent (fraction)

W - Waste solvent shipped off for disposal (tons)

V_w - VOM content of waste solvent (fraction)

- e. Emissions of volatile organic material (VOM) and operation of the 20 plastic cup and plastic lid extruders line shall not exceed the following limits:

<u>VOM Usage</u>		<u>VOM (Styrene)</u>	<u>VOM (Styrene)</u>	
<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>	<u>Content</u>	<u>Emissions</u>	
		<u>(Wt.%)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
1.0	9.5	0.085	1.0	9.5

VOM usage shall be calculated using the following equation:

$$Te = \sum_i^n AiBi$$

Where:

Te = VOM usage in units of lb/mo

n = Number of different batches of resin used each month

i = Subscript denoting an individual resin batch

Ai = Weight percent of VOM of each resin batch used each month
(% weight)

Bi = Amount of each resin batch used each month in units of
lb/mo

- f. Operation and VOM emissions of the natural gas fired equipment:

<u>Natural Gas Consumption</u>		<u>Emission Factor</u>	<u>VOM Emissions</u>	
<u>(mmscf/Mo)</u>	<u>(mmscf/Yr)</u>	<u>(Lb/10⁶ scf)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
50	500	2.8	0.1	0.7

- g. Operation and VOM emissions of the plate maker processor and dryer:

<u>Solvent Usage</u>		<u>VOM Content</u>	<u>VOM Emissions</u>	
<u>(Gal/Mo)</u>	<u>(Gal/Yr)</u>	<u>(Lb VOM/Gal)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
55	545	7.26	0.2	2.0

These limits define the potential emissions of VOM and are based on the maximum actual emissions determined from maximum production capacity allowed by this permit. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

3. The emissions of HAPs as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a Clean Air Act Permit Program permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a Clean Air Act Permit Program permit from the Illinois EPA.
4. The emission of ozone (O₃) from the corona arc treatment and ozone decomposition unit shall not exceed 4.6 Ton/year. This limit is based on the power supply rating of 15 kW, operating time 8,400 hr/year and manufacturer emission factor of 0.073 lb of O₃ per kW-hr.
5. Emissions and operation of natural gas fired equipment shall not exceed the following limits:

<u>Pollutant</u>	<u>Emission Factor (lb/mmscf)</u>	<u>Emissions (Tons/Mo) (Tons/Yr)</u>	
Nitrogen Oxides (NO _x)	140	3.5	35.0
Carbon Monoxide (CO)	35	0.9	8.8
Particulate Matter (PM)	14	0.4	3.5

These limits are based on the maximum firing rate, usage of 50 mmscf/mo and 500 mmscf/yr of natural gas and standard emission factors given by AP-42 (5th edition). Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

- 6a. This permit is issued based on negligible emission of particulate matter from resin silos loading/unloading system and two resin storage tanks. For this purpose, emissions from each source shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.
- b. This permit is issued based on negligible emissions of VOM from the three UV offset printing presses. For this purpose emissions from each emission source shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 ton/yr.
7. The Permittee shall maintain monthly records of the following items:
 - a. Names and amounts of inks, extenders, adhesives, and cleanup solvents used (tons/mo and tons/yr);
 - b. Amount of each batch of resin used in the extruders (tons/mo and tons/yr);
 - c. VOM and HAP content of each ink, extruders, adhesives, cleanup solvent, and resin batch (wt. %);
 - d. Natural gas usage (mmscf/mo); and

- e. Detailed calculations of VOM and individual HAP emissions (tons/month, tons/year).
- 8. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to the Illinois EPA or USEPA request for records during the course of a source inspection.
- 9. If there is an exceedance of the requirements of this permit, as determined by the record required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released, a copy of the relevant records, and a description of the exceedance or violation, and efforts to reduce emissions and future occurrences.
- 10. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:
 - a. Inks, extenders, adhesives, cleanup materials and resins usage (tons/year) and their VOM and HAP content (wt. %); and
 - b. Natural gas usage (mmscf/yr).

If there have been no exceedances during the prior calendar year, the Annual Emission Report shall include a statement to that effect.

- 11. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
209 Mall Street
Collinsville, Illinois 62234

Please note that this permit has been revised to incorporate the replacement corona arc treatment unit from Construction Permit 02100042.

Page 6

If you have any questions on this, please call Tara T. Nguyen-Ede at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:TNE:jar

cc: Illinois EPA, FOS Region 3
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the paperware manufacturing plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are well below the levels, e.g., 100 tons per year of VOM, 10 tons per year for a single HAP, and 25 tons per year for totaled HAP, at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that material is handled and control measures are more effective than required in this permit.

1. Total combined emissions of VOM from the source operations:

Equipment/Operations	VOM Emissions	
	Tons/Month	Tons/Year
Printing Presses - Printing	3.2	32.1
Printing Presses - Cleanup	0.45	4.0
Laminator, Tub Gluing Lines	0.7	7.0
Miscellaneous Cleanup Operations	1.5	15.0
Extruders	1.0	9.5
Plate Maker Processor and Dryer	0.2	2.0
Natural Gas Combustion	0.1	0.7
Total	7.15	70.3

2. The emissions of HAPs as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a Clean Air Act Permit Program permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a Clean Air Act Permit Program permit from the Illinois EPA.
3. The emission of ozone (O₃) from the corona arc treatment and ozone decomposition unit shall not exceed 4.6 Ton/year. This limit is based on the power supply rating of 15 kW, operating time 8,400 hr/year and manufacturer emission factor of 0.073 lb of O₃ per kW-hr.
4. Emissions from the natural gas fired equipment:

Pollutant	Emission Factor	Emissions	
	(lb/mmscf)	(Tons/Mo)	(Tons/Yr)
Nitrogen Oxides (NO _x)	140	3.5	35.0
Carbon Monoxide (CO)	35	0.9	8.8
Particulate Matter (PM)	14	0.4	3.5

5. This permit is issued based on negligible emission of particulate matter from resin silos loading/unloading system and two resin storage

tanks. For this purpose, emissions from each source shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.

DES:TNE:jar